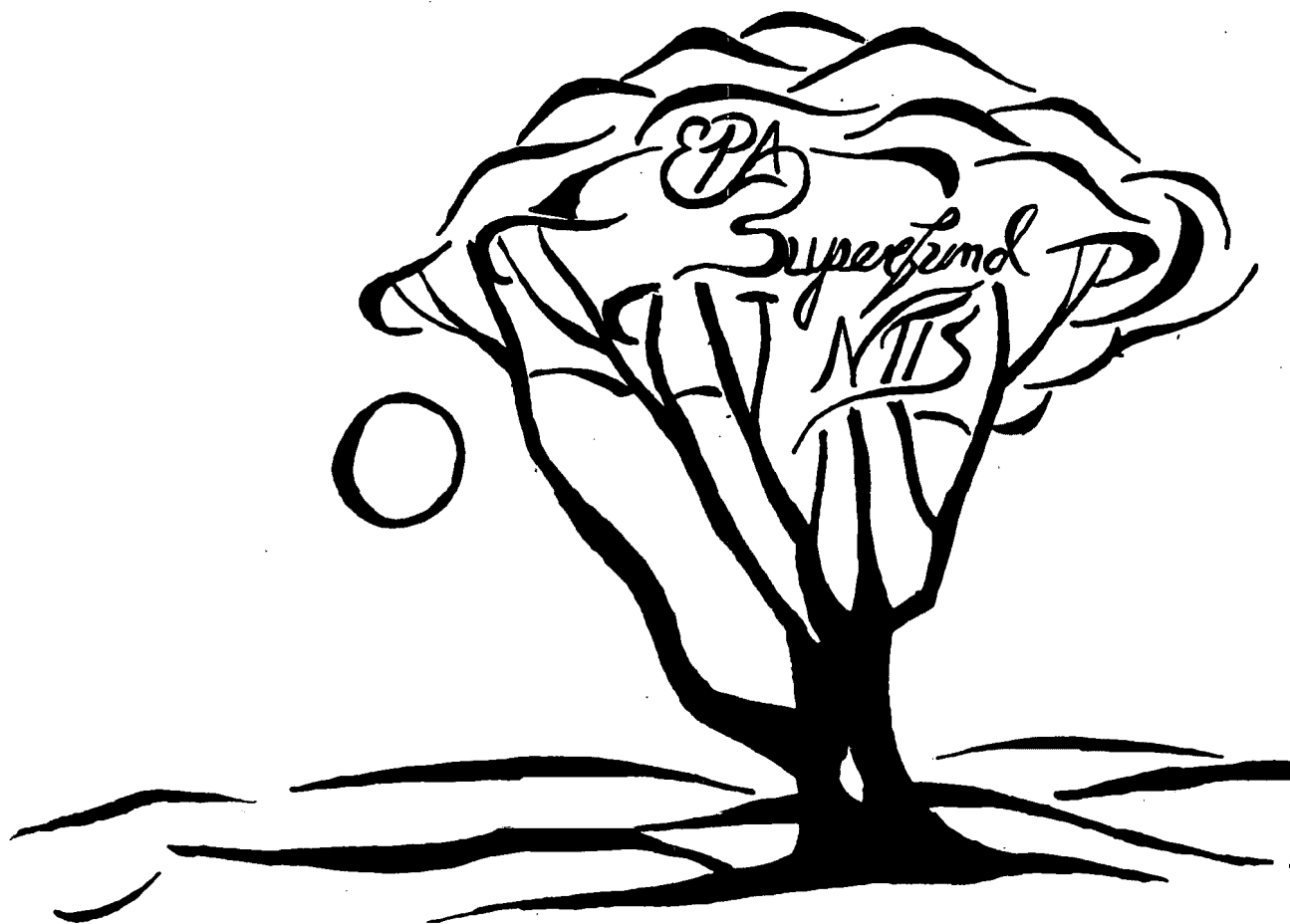


PB94-964139
EPA/ROD/R05-94/266
April 1995

EPA Superfund Record of Decision:

**Kent City Mobile Home
Park, Kent City, MI
9/13/1994**



**KENT CITY MOBILE HOME PARK
KENT CITY, KENT COUNTY, MICHIGAN**

SUMMARY OF REMEDIAL ALTERNATIVE SELECTION

AUGUST 15, 1994

Prepared by:

**U.S. Environmental Protection Agency
Region V
Chicago, Illinois**

DECLARATION FOR THE RECORD OF DECISION

SITE NAME AND LOCATION

Kent City Mobile Home Park, Kent City, Kent County, Michigan.

STATEMENT OF BASIS

This decision document presents the selected remedial action for the Kent City Mobile Home Park Site in Kent City, Michigan, which was chosen in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), and, to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). This decision is based on the administrative record for the site.

The State of Michigan concurs with selection of the No Action remedy.

DESCRIPTION OF THE SELECTED REMEDY

The United States Environmental Protection Agency (U.S. EPA) has selected "No Action."

DECLARATION

U.S. EPA has determined that no further remedial action is necessary at this site. Therefore, the site now qualifies for inclusion in the "sites awaiting deletion" subcategory of the Construction Completion category of the National Priorities List.

As this is a decision for "No Action", the statutory requirements of CERCLA Section 121 for remedial actions are not applicable and no five year review will be undertaken.

Date

9/3/94


Valdas V. Adamkus
Regional Administrator

STATE OF MICHIGAN



JOHN ENGLER, Governor

DEPARTMENT OF NATURAL RESOURCES

Stevens T. Mason Building, P.O. Box 30028, Lansing, MI 48909

ROLAND HARMES, Director

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September 6, 1994

Mr. Valdas V. Adamkus, R-19J
Administrator, Region 5
U.S. Environmental Protection Agency
77 West Jackson Boulevard
Chicago, IL 60604-3590

Dear Mr. Adamkus:

SUBJECT: Kent City Mobile Home Park - Concurrence with "No Action" Remedy

The Michigan Department of Natural Resources (MDNR) has reviewed the U.S. Environmental Protection Agency's (EPA) proposed Record of Decision (ROD) for the Kent County Mobile Home Park site located in Kent City, Michigan.

Although the source of contamination has been removed and the water supply at the mobile home park replaced, remaining contamination above the maximum contaminant levels in the old water supply well warrants additional downgradient monitoring. As long as the ROD contains provisions for downgradient monitoring, the MDNR concurs with the "No Action" alternative selected by the EPA.

If you have any questions, please feel free to contact Ms. Claudia Kerbawy, Superfund Section, Environmental Response Division, at 517-335-3438, or you may contact me.

Sincerely,

Russell J. Harding
Deputy Director
517-373-7917

cc: Ms. Rose Freeman, EPA
Ms. Betty Lavis, EPA
Mr. Rick Falardeau, MDPH
Mr. Mike Lee, MDPH
Mr. Alan J. Howard, MDNR
Mr. Mike Baranoski, MDNR
Ms. Claudia Kerbawy, MDNR
Kent City Mobile Home Park file



DECISION SUMMARY

I. SITE NAME, LOCATION, AND DESCRIPTION

The Kent City Mobile Home Park Site (the Site) is located at 135 Main Street, Kent City, Kent County, Michigan (see Figure 1). About 75 mobile homes are located on the two-acre site. Approximately 3,000 people live within a three-mile radius of the site. Land use to the north, west and south of the site is mixed agricultural and residential; land use to the east is commercial. There are four schools within a three-mile radius, though none in the immediate vicinity of the site. There is no municipal water supply within the city limits; approximately ninety percent of the residents use groundwater as a source of drinking water. Ball Creek drain, the closest surface water, crosses the northeast corner of the site and flows southeast.

II. SITE HISTORY AND ENFORCEMENT ACTIVITIES

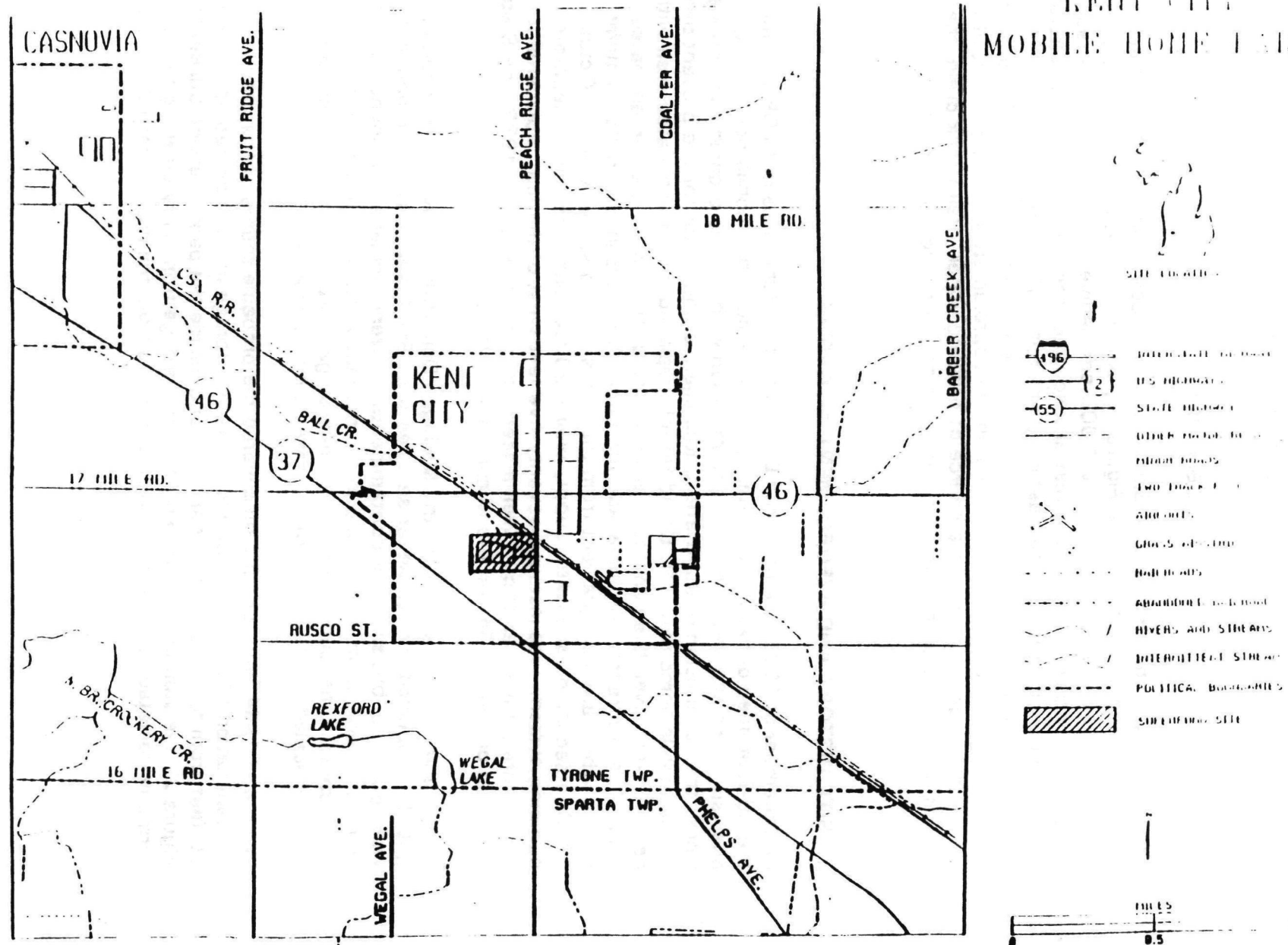
In December of 1982, the Michigan Department of Public Health (MDPH) sampled the 65-foot deep drinking water supply well located in the mobile home park; analysis of the samples revealed contamination with volatile organic compounds. Under the supervision of the State of Michigan, a contractor for the present owner of the mobile home park, Mr. David Hough, replaced the contaminated well with a new 130-foot well five hundred feet west and upgradient of the contaminated well. The contractor also installed four monitoring wells in the shallow aquifer, two of which are downgradient from the contaminated supply well. In October of 1983, a second on-site water supply well, 120 feet deep and with a separate pumping system, was installed seventy-five feet west of the first replacement well (see Figure 2 for schematic of well placement). In November of 1983, the State of Michigan placed the Site on the Michigan Act 307 List.

As the investigation continued, the Michigan Department of Natural Resources (MDNR) examined surface water samples from Ball Creek Drain. Contaminants were detected, but since the contaminants, benzene, toluene, ethylbenzene and xylene, differed from those found in the contaminated well, investigators suspected another source off-site. A nearby gas station, Kent City Body Shop, was implicated as the source of the creek's contaminants.

In April of 1984, investigators discovered the probable source of the groundwater contamination at the site - a buried 55-gallon storage drum. Located approximately 20 feet from the mobile home park well and beside the park's service building (see Figure 2), the storage drum collected floor drainage from a dry cleaning facility that formerly operated at the site. Samples of liquid from the drum revealed some of

Figure 1.

KENT CITY MOBILE HOME PARK



Michigan Department of Public Health

Base map information provided by Michigan Department of Natural Resources, MIRIS Program

6-79-01

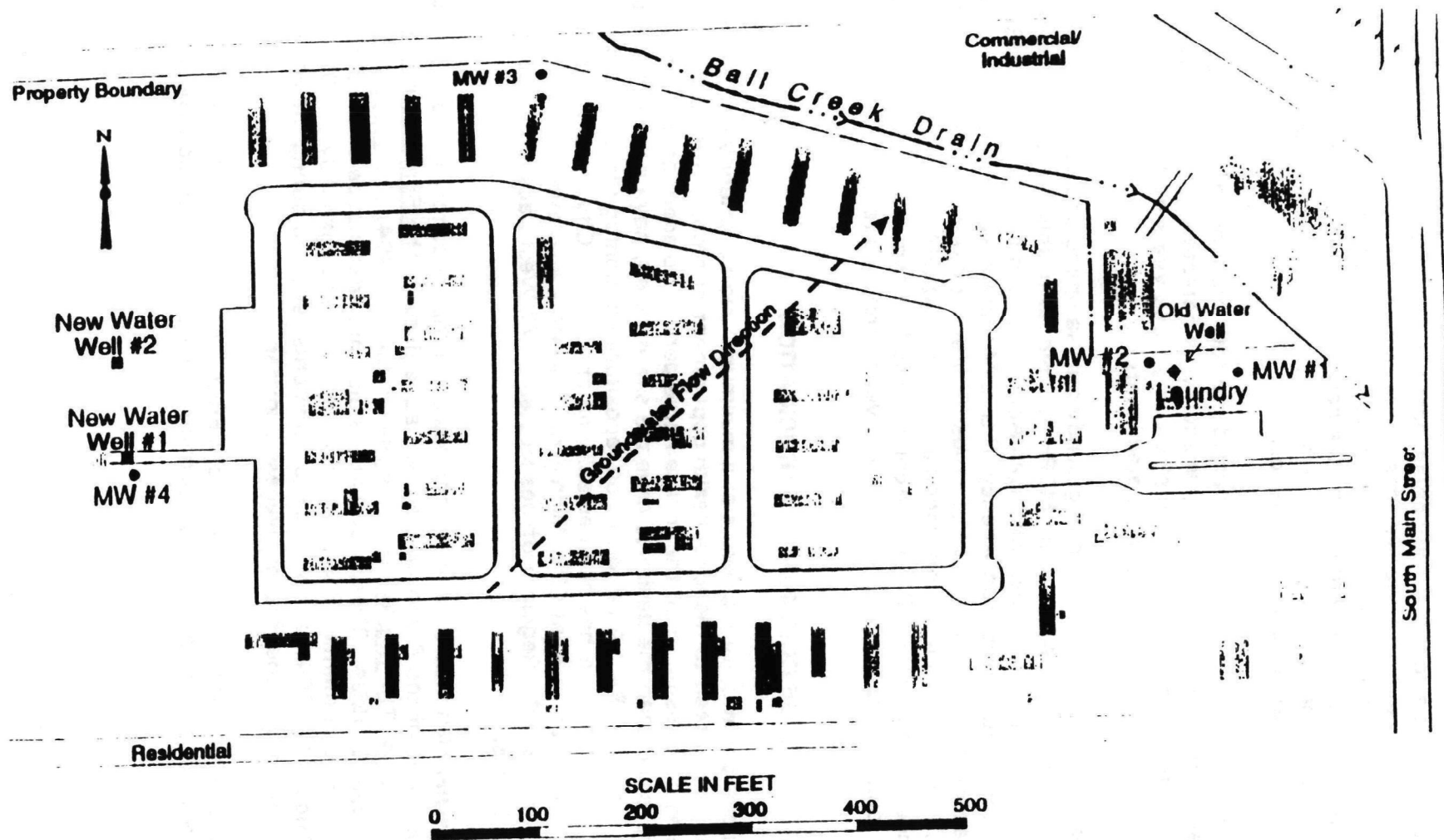


Figure 2
Site Map, Kent City Mobile Home Park

the same chemicals found in the contaminated well. Solvents from the drum apparently migrated down the well casing contaminating the well. Later that month, the drum and surrounding soil (which contained trace amounts of tetrachloroethylene) were removed by the park owner under the supervision of MDNR. MDNR reports indicate the remaining soil was free of color and odor. The excavation site was filled with clean soil.

In April and May of 1984, MDPH sampled the four monitoring wells and twenty-nine nearby private wells. No contamination was detected in any of these wells. The new water supply wells are sampled every three years by MDPH; results have consistently shown no detectable contaminants.

Once the source was removed and groundwater sampling showed no evidence of contamination, the MDNR and the MDPH decided no further action was necessary and delisted the site from their Michigan Act 307 List in November of 1985. The U.S. Environmental Protection Agency (U.S. EPA) however, scored the site based on contaminant levels and routes of exposure present before the removal and, on July 21, 1987, placed it on the National Priorities List (NPL). No further activities were undertaken by U.S. EPA until April 20, 1994, when U.S. EPA performed another round of groundwater sampling to verify previous results.

III. HIGHLIGHTS OF COMMUNITY PARTICIPATION

At this point community interest is at a minimum. No community health concerns have been expressed to the local health department or mobile home park management by residents of the mobile home park or adjacent areas. No concerns, other than the desire to have the site delisted, have been expressed to MDNR or to U.S. EPA. An information repository containing the administrative record (AR) for the site has been established at the Kent City Library located at 43 South Main Street, in Kent City, Michigan. The AR is also available on the 7th floor of the U.S. EPA Region 5 offices located at 77 West Jackson Boulevard in Chicago, Illinois.

The Proposed Plan was distributed and placed in the repository on July 1, 1994. A brief analysis of the Proposed Plan was advertised in The Sparta/Kent Advance on July 5, 1994, The Muskegon Chronicle on July 4, 1994, and The Grand Rapids Press on July 6, 1994. These publications also provided notice of the period for submission of comments. The public comment period began July 1, 1994 and ended August 1, 1994. A response to comments received during the comment period is included in the Responsiveness Summary.

The public participation requirements of CERCLA sections 113 (k) (2) (B) (i-v) and 117 have been met in the remedy selection process. This decision document

represents the selected remedial action for the Kent City Mobile Home Park Site in Michigan, chosen in accordance with CERCLA, as amended by SARA and, to the extent practicable, the NCP. This decision is based on the administrative record.

IV. SCOPE & ROLE OF RESPONSE ACTION

U.S. EPA recommends that no further remedial action be taken at the Site. The source of the contamination was removed; subsequent groundwater and surface water sampling events that included the monitoring wells, the two new water supply wells, and Ball Creek Drain, have not revealed the presence of contaminants that exceed any state or federal drinking water standards or criteria. Carbon tetrachloride above federal maximum contaminant levels for drinking water is still present in the old water supply well but appears to be having no impact on the ground water or surface water. An appropriate monitoring well will be placed, or another well that can function as a monitoring well will be identified, down gradient of the old water supply well and in the same aquifer. If future sampling events of this well or other sampling events routinely performed by MDPH indicate the No Action alternative is no longer protective of human health or the environment, U.S. EPA will reevaluate this decision.

V. SITE CHARACTERISTICS

The two-acre site is flat with little topography, sloping down abruptly as it meets Ball Creek Drain corridor along the northeast side. Ball Creek Drain, a small, shallow creek that flows southeast from the site, is the only surface water body in the area. The creek corridor appears to have been deepened for flood control. A narrow band of wetland area appears intermittently at the interface of the steep sides and the surface of the creek.

Well logs and available hydrogeological information indicates the presence of at least three aquifers: a shallow aquifer at 10 to 15 feet, a middle aquifer that extends to about 65 feet, and a deep aquifer that extends to about 130 feet. The two upper aquifers appear to be connected but separated from the deep aquifer by at least five intervening clay layers. Groundwater flows northeast toward Ball Creek Drain (see Figure 2). Site soils are not well defined but appear to be sandy down to about ten feet at which point they are mixed with clay and clay lenses.

Groundwater and surface water sampling events subsequent to the removal activities performed in April of 1984, indicate the contamination was a localized event limited to the spill area and is not present in the ground water and soil. These findings were confirmed by sampling performed in April of 1994.

VI. SUMMARY OF SITE RISKS

The purpose of the risk assessment is to estimate the magnitude of potential risk to public health and the environment which may be due to exposure to contaminants identified at the site. Such assessment involves identifying contaminants of potential concern, routes by which such contaminants may migrate, and populations which may come into contact with the contaminants. The assessment is based on the premise that no further actions will be taken at the site and takes into account current site conditions.

1) Contaminants of Potential Concern

Sampling of the old water supply well at the Kent City Mobile Home Park performed in December of 1982 by the Michigan Department of Public Health, revealed the presence of volatile organic compounds (VOCs). These results are shown in Table 1 in parts per billion (ppb):

Table 1
Old Water Supply Well Sampling Results
December 1982

<u>COMPOUNDS</u>	<u>Results</u>	<u>MCL¹</u>	<u>MI Type B²</u>
Carbon tetrachloride	23	5	0.27
Chloroform	1	80	5.6
Methylene chloride	41	5	4.6
Toluene	19	1000	1500.0
Trichloroethylene	2	5	2.2

¹Federally mandated maximum contaminant levels for drinking water.

²Michigan Type B standards for drinking water.

Samples of liquid from a storage drum found in April of 1984 adjacent to the dry cleaning/laundry building, revealed some of the same contaminants found in the contaminated well. These results are shown in Table 2 in ppb. Samples of the excavated soil contained trace amounts of tetrachloroethylene.

Table 2
Storage Drum Sampling Results
April 1984

<u>COMPOUNDS</u>	<u>Results</u>
Carbon tetrachloride	10,000
Trichloroethylene	3,600

2. Potential Health Effects

Appendix A of the Site administrative record contains potential health effect information for chemicals of concern found in the past at the site.

3. Exposure Assessment

The potential pathways of human exposure to the contaminated groundwater were dermal absorption, ingestion, and inhalation secondary to household use. Each of these pathways was eliminated however, by removal activities completed in 1984. These removal activities included removal of the source material (drum and soil) and installation of an alternative water supply.

The contaminated well was shut off and replaced with a new well upgradient of the contaminated well which draws from a deeper aquifer with no hydraulic connection to the shallow aquifer. A second on-site supply well with a separate pumping system was installed west of the first replacement well also in the deeper aquifer. The alternative water supply from the uncontaminated deep aquifer completely replaces the original supply well and prevents any contact with the contaminated source.

4. Risk Summary

Previous removal activities and construction of an alternative water supply at the site have eliminated existing and potential risks to human health and the environment such that no further action is required. Historical and recent sampling events indicate that the contamination was localized and there are no longer any health risks from site-related contaminants present in the groundwater, soil, or in Ball Creek.

The four monitoring wells and twenty-nine nearby private wells were sampled in April and May of 1984. No contaminants were detected in any of these wells. The new water supply wells are sampled and tested every three years; results have consistently shown no detectable contaminants. Ball Creek Drain was sampled by MDNR on May 20, 1993; no contaminants were detected. All sampling results are available in the AR.

U.S. EPA performed a new round of sampling April 20, 1994 that included MW (monitoring well) #1 and MW #2, the two new water supply wells, and the original supply well. MW #3 and MW #4 have been damaged and were not available for sampling. Samples were tested for VOCs. Sampling results for the monitoring wells and the two new water supply wells indicated that no VOCs exceeding MCLs were present. Samples taken from the original water supply well indicate that low levels of carbon tetrachloride (8 ppb) are still present. This well, which is not

available as a water source, and monitoring wells #3 and #4, will be properly abandoned and grouted. The April 20, 1994, sampling results are also included in the AR.

The Agency for Toxic Substances and Disease Registry (ATSDR) of the U.S. Department of Health and Human Services has evaluated available data for the site and recommends in its Site Review and Update dated 9/10/93 that "no further public health actions are indicated at this time."

VII. STATUTORY AUTHORITY FINDING

U.S. EPA has determined that conditions at the site pose no current or potential threat to human health or the environment, therefore no remedial action is necessary to ensure protection of human health or the environment. As this is a decision for No Action, the requirements of CERCLA Section 121 for remedial actions are not applicable and a statutory five year review is not required.

VIII. EXPLANATION OF SIGNIFICANT CHANGES

There are no significant changes from the recommended alternative described in the proposed plan.

RESPONSIVENESS SUMMARY KENT CITY MOBILE HOME PARK SITE

This Responsiveness Summary (RS) has been prepared to meet the requirements of Sections 113(k)(2)(B)(iv) and 117(b) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), which requires U.S. EPA to respond to significant comments, criticisms, and new data submitted in written or oral presentations on a proposed plan for remedial action. The purpose of the RS is to address concerns expressed by the public, potentially responsible parties, and governmental bodies in the written and oral comments received by the U.S. EPA regarding the proposed remedy for the Kent City Mobile Home Park site (the Site). All of the comments summarized in this document were considered prior to U.S. EPA's final decision on the selected alternative for the Site and have been placed in the administrative record (AR) for the Site.

I. RESPONSIVENESS SUMMARY OVERVIEW

U.S. EPA has determined that conditions at the Site pose no current or potential threat to human health or the environment, therefore no remedial action is necessary to ensure protection of human health or the environment. The source of the contamination was removed; subsequent groundwater and surface water sampling events that included the monitoring wells, the two new water supply wells, and Ball Creek Drain, have not revealed the presence of contaminants that exceed any state or federal drinking water standards or criteria. Carbon tetrachloride above federal maximum contaminant levels for drinking water is still present in the old water supply well but appears to be having no impact on the ground water or surface water. An appropriate monitoring well will be placed, or another well that can function as a monitoring well be identified, down gradient of the old water supply well and in the same aquifer. If future sampling events of this well or other sampling events routinely performed by MDPH indicate the No Action alternative is no longer protective of human health or the environment, U.S. EPA will reevaluate this decision.

There are no significant changes from the recommended alternative described in the proposed plan.

II. BACKGROUND ON COMMUNITY INVOLVEMENT

Community interest appears to have peaked before U.S. EPA placed the Site on the National Priorities List in 1987. Once removal activities completed by the State of

Michigan in 1985 had provided the residents of the mobile home park with a safe drinking water supply, and assured the community that the source of the contamination had been removed and that the contaminated well was not impacting the groundwater or surface water, community interest declined. Prior to the public comment period in July of 1994, no community health concerns had been expressed to the local health department or mobile home park management by residents of the mobile home park or adjacent areas. No concerns, other than the desire to have the site delisted, have been expressed to MDNR or to U.S. EPA.

An AR for the Site was established in April of 1994 with documents being made available to the public at the Kent County Library in Kent City, Michigan and at the U.S. EPA offices in Chicago, Illinois. The file includes general information concerning site background and history as well as documents such as sampling results, correspondence, health assessments, and site inspection results. The AR was updated prior to the commencement of the public comment period in July of 1994. The update included the draft proposed plan and additional sampling results.

A notice of availability of the AR and proposed plan was advertised in The Sparta/Kent Advance on July 5, 1994, The Muskegon Chronicle on July 4, 1994, and The Grand Rapids Press on July 6, 1994. This notice served to initiate a public comment period from July 1, 1994 to August 1, 1994 on the proposed plan. The notice also included U.S. EPA's offer to hold a public meeting on the proposed plan if requested; no requests were received.

III. SUMMARY OF COMMENTS RECEIVED AND U.S. EPA'S RESPONSE TO COMMENTS

One phone call and one written comment were received during the public comment period. Comments and responses are listed below:

COMMENT: A resident of the mobile home park wanted to know if the "area was safe," referring to the mobile home park.

RESPONSE: Conditions at the mobile home park appear to pose no current or potential threat to human health or the environment. The source of the contamination was removed. Subsequent groundwater and surface water sampling events that included the monitoring wells, the two new water supply wells and Ball Creek Drain, have not revealed the presence of contaminants that exceed any state or federal drinking water standards or criteria.

The low levels of carbon tetrachloride still present in the old water supply well appear to be localized and are not impacting the ground water or surface water.

The well is not currently available as a public water supply and will be properly abandoned as described in the Record of Decision.

COMMENT: A resident of the mobile home park stated that the water smells bad, material settles out if the water is left standing in a container, and that the site should not be delisted until something is done about it.

RESPONSE: The objectional odor and deposits in the water supply at the mobile home park are consistent with problems associated with iron and "hard water." Iron levels in drinking water in excess 0.5 milligrams (mg) per liter often become aesthetically objectionable in that they may result in staining, turbidity, and poor taste and odor. A sample taken from the park's supply well in 1989 by the MDPH showed 1.6 mg per liter of iron in the water. The problems described in the comment are, according to the Michigan Department of Public Health (MDPH), typically associated with the naturally occurring iron found in the deep aquifer of this region and frequently described by Kent City residents whose wells also tap the deep aquifer used by the mobile home park. In addition to the high levels of iron, the calcium carbonate levels in this aquifer cause "hardness" which creates scaling and scum deposits.

These problems, while unpleasant, are not associated with any human health or environmental risks. Neither U.S. EPA nor MDNR are authorized to address aesthetic drinking water problems associated with naturally occurring iron and calcium carbonate. Installation of a water tower would not improve the water quality of the underground source. There are, however, commercially available products that can improve aesthetic qualities of the water supply. The homeowner and the mobile park owner are free to explore and install these products.